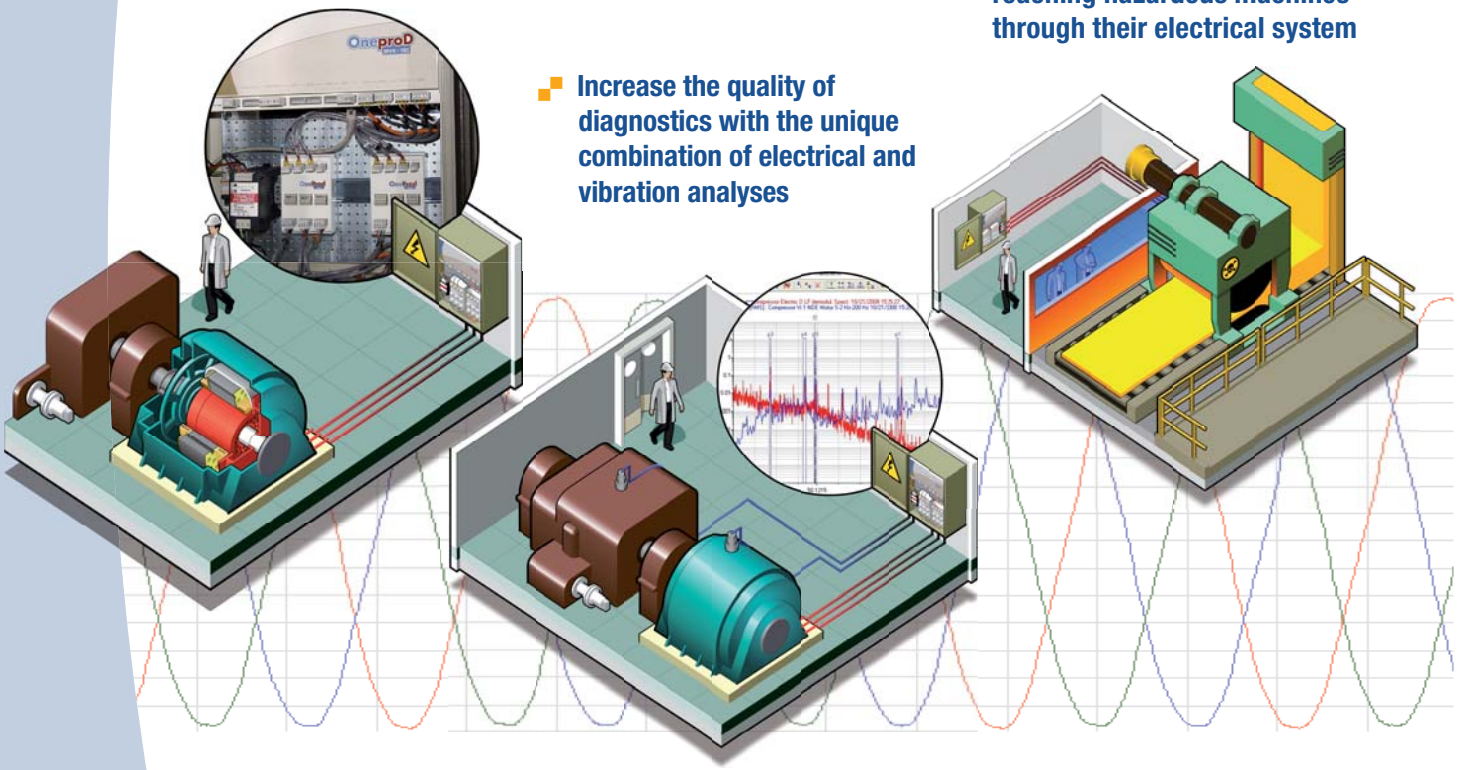
OneProd ESA

Electrical Signature Analysis Solutions

Electrical Analysis meets Vibration Analysis for the best of your diagnostic

- **Improve motor reliability by monitoring their mechanical and electrical components**
- **Extend equipment monitoring by reaching hazardous machines through their electrical system**
- **Increase the quality of diagnostics with the unique combination of electrical and vibration analyses**



And also...

- Become quickly operational thanks to an easy set-up and to the guidance of automatic failure diagnostics
- Catch very low frequency phenomena by using the unique capabilities of electrical signature analysis in this domain

OneProd System integrates Electrical Signature Analysis (ESA) to its wide range of condition monitoring systems. ESA is a diagnostic and analysis module designed to evaluate the electrical and mechanical behaviours of induction motors. This technology enables you to monitor operating electrical equipment and detect mechanical and electrical problems in the motor, power supply, and driven machine.

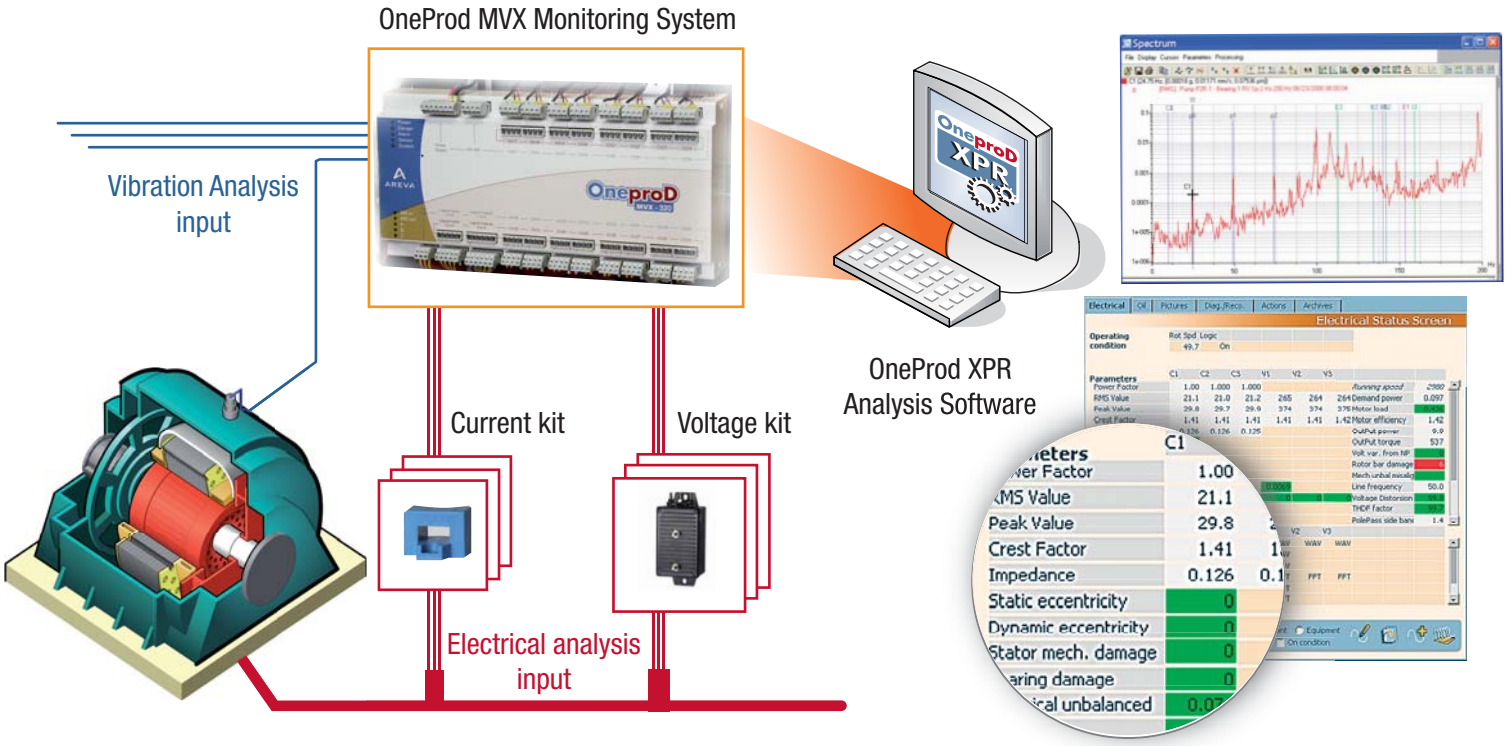
ESA offers the ability to clearly detect motor problems, such as rotor bar deterioration, static and dynamic rotor eccentricity, stator current imbalance, and monitors the power factor. ESA also identifies power supply problems by monitoring the input power, voltage imbalance and harmonics. Overall, ESA captures mechanical deteriorations from the motor up to the driven machine on bearings, couplings, belts, pumps, fans, gears…

With ESA, the motor monitoring job is complete.

AREVA

01dB-Metravib
www.oneprod-system.com

Implementing Electrical Signature Analysis



With OneProd System, electrical and vibration input data come together through the monitoring system and the analysis software. Combining them into a unique database and processing them with a single analysis tool allow the two technologies to work together.

More specifically, Electrical Signature Analysis operates by measuring and processing current and voltage from the three phases applied to the motor. ESA can monitor induction motors in 50 Hz or 60 Hz, and motors operated by Variable Frequency Drives (for other electrical installations, OneProd service solutions are available).

To start the monitoring, an extensive motor database allows for a rapid set-up. Once the data collection has begun, the analysis software recognizes the typical signature of damage, leading to an automatic diagnostic of equipment failures. The motor deteriorations are clearly outlined in the OneProd XPR software, through the automatic Defect Detection Grid, and are also easily visible on the frequency spectra for a more detailed analysis.

Building blocks for an Electrical Signature Analysis solution

Voltage Kit, including
- 3 voltage sensors
- 1 Electrical Interface Module

Current Kit, including
- 3 current sensors,
- 1 Electrical Interface Module

Various kits are available, to adjust to the level of motor current

OneProd MVX monitoring system, featuring:
- Synchronous acquisition of 8 to 32 channels in a 0 to 20 kHz range
- To monitor a group of motors on the same bus, plan 6 input channels for the first motor (current and voltage inputs), and 3 channels for each subsequent motor (current input only).

OneProd XPR 300, the predictive maintenance analysis software, with an extensive motor database. Choose either:
- The ESA package for Electric Signal Analysis (without Vibration Analysis)
- The EVA package for Electric & Vibration Analyses. Manage in one unique system both technologies, and combine the analyses.

Contact your commercial representative today...

... or log on to www.oneprod-system.com for more information!